CLAIM 1. A veneer comprising:

a polymeric matrix in an amount from about 20 to about 60 weight percent of the veneer composition;

a randomly dispersed, fibrous filler in an amount from about 5 to about 50 weight percent of the veneer composition; and

a particulate filler in an amount from about 20 to about 60 weight percent of the veneer composition;

wherein the veneer has deflection values in the range from about 0.60 to about 3.0 when measured on a sample of 2mm x 2mm x 25mm by American National Standard/American Dental Association Specification No. 27.

CLAIM 2. The veneer of Claim 1 comprising from about 30 to about 55 by weight of the polymeric matrix; from about 5 to about 40 by weight of the fibrous filler; and from about 20 to about 55 by weight of the particulate filler.

CLAIM 3. The veneer of Claim 1, wherein the fibrous filler comprises short fibers of lengths no greater than 1/4 inch.

CLAIM 4. The veneer of Claim 3, wherein the length of the fibers is between about 0.01 and about 6 mm.

CLAIM 5. The veneer of Claim 1, wherein the fibrous filler is silanized.

CLAIM 6. The veneer of Claim 1, wherein the polymeric matrix comprises ethoxylated bisphenol A dimethacrylate in an amount in the range from 55 to about 90 percent by weight of total polymeric matrix.

CLAIM 7. A dental restoration comprising:

a fiber-reinforced structural component having fibers embedded within a first polymeric matrix material; and

a pontic disposed on the structural component, the pontic having randomly dispersed fibers embedded within a second polymeric matrix material.

CLAIM 8. The dental restoration of Claim 7 wherein the randomly dispersed fibers are less than about 1/4 inch in length.

CLAIM 9. The dental restoration of Claim 7 wherein the fibrous filler comprises fibers having maximum lengths no greater than 6 mm.

CLAIM 10. The dental restoration of Claim 7 wherein the fibrous filler comprises fibers having lengths in the range from about 0.1 to about 6 mm.

CLAIM 11. The dental restoration of Claim 7 wherein the fibers embedded within the first polymeric matrix are oriented, woven, longitudinally distributed, normally oriented to a longitudinal axis, or a mixture thereof.

CLAIM 12. The dental restoration of Claim 7 wherein the strain to failure value of the pontic is about equal to or higher than the strain to failure value of the structural component.

CLAIM 13. The dental restoration of Claim 7 wherein the randomly dispersed fibers are selected from one or more of glass, carbon, ceramic, graphite, and polyaramid fibers.

CLAIM 14. The dental restoration of Claim 7 wherein the pontic further comprises a particulate filler.

CLAIM 15. The dental restoration of Claim 14 wherein the particulate filler is selected from one or more of a silica, silicate glass, quartz, barium borosilicate, strontium silicate, barium silicate, strontium borosilicate, borosilicate, lithium silicate, amorphous silica, calcium phosphate, alumina, zirconia, tin oxide and titania.

CLAIM 16. A process for forming a dental restoration comprising:

providing a structural element comprised of a first fiber reinforced composite material;

disposing a second composite material thereon, wherein the second composite material comprises randomly dispersed fibers embedded within a polymeric material; and

curing the second composite material.

CLAIM 17. The process of Claim 16 wherein the structural component is cured prior to disposing the second composite material thereon.